

Sub A1)

1. A video storage and display system, comprising:
a plurality of video cameras, each outputting a signal representative of a video image;
means to receive the signals from each camera and digitally compress the images;
two forms of high-capacity storage media, one being randomly searchable while the other continues to store the digitally compressed image; and
a computer configured to receive the digitally compressed images, the computer being interfaced to the following devices:
a display screen,
means to receive externally derived operator commands, and
the high-capacity storage media, and wherein the computer is programmed to perform the following functions:
display the digitally compressed images from the cameras in different windows on the display screen, each window being associated with an update rate and dimensions in pixels,
vary the dimensions and the rate at which a particular image is updated in its window in accordance with one of the externally derived commands,
store the digitally compressed images in the high-capacity storage medium, and
vary the dimensions and the rate at which a particular image is stored in accordance with one of the externally derived commands.

2. The video storage and display system of claim 1, further including means associated with the computer for controlling the operation of one or more of the video cameras.

3. The video storage and display system of claim 1, wherein the means to digitally compress the image from a particular camera is disposed at the location of the camera.

4. The video storage and display system of claim 1, wherein the means to digitally compress the image from a particular camera is disposed at the location of the computer.

5. The video storage and display system of claim 1, further including a separate computer associated with each camera, the computers being networked together over a common communication bus, enabling an operator situated at a particular computer to display the images gathered by other cameras in separate windows on that operator's display screen.

Sub A2)

6. The video storage and display system of claim 1, wherein the high-capacity storage medium comprises a magnetic tape.

7. The video storage and display system of claim 1, wherein the high-capacity storage medium comprises a magnetic disk.

8. The method of simultaneously displaying and storing multiple video images, comprising the steps of:

receiving video images from a plurality of sources;
digitizing one or more of the images if not already in digital form;

displaying at least certain of the digitized images in separate windows on a display device, using a first, predetermined frame rate and resolution associated with each window; and

5 simultaneously storing the displayed images using a second, predetermined frame rate and resolution associated with each image.

9. The method of claim 8, further including the step of receiving a command to set the frame rate and resolution associated with the display and storage of a particular image.

10. The method of claim 9, wherein the command is based upon an operator input.

11. The method of claim 9, wherein the command is based upon an external stimulus.

SUB 15

12. The method of simultaneously displaying and storing multiple video images, comprising the steps of:

receiving video images from a plurality of sources;

digitizing one or more of the images if not already in digital form;

displaying at least certain of the digitized images in separate windows on a display device, using a first set of temporal and spatial parameters associated with each image in each window;

simultaneously storing the displayed images using a second set of temporal and spatial parameters associated with each image.

13. The method of claim 12, the temporal parameters including frame rate.

14. The method of claim 12, the spatial parameters including image dimension in pixels.

SUB 15

15. A video storage and display system, comprising:

a plurality of video cameras, each outputting a signal representative of a video image;

means to receive the signals from each camera and digitally compress the images; and

a computer configured to receive the digitally compressed images, the computer being interfaced to the following devices:

a display screen,

means to receive externally derived operator commands including means for sensing a deviation from the normal-state image scene associated with at least one of the video cameras, the existence of the deviation being used as the basis for generating an externally derived command, and

a high-capacity storage medium, and programmed to perform the following functions:

display the digitally compressed images from the cameras in different windows on the display screen, each window being associated with an update rate and dimensions in pixels,

vary the dimensions and the rate at which a particular image is updated in its window in accordance with one of the externally derived commands,

store the digitally compressed images in the high-capacity storage medium, and

vary the dimensions and the rate at which a particular image is stored in accordance with one of the externally derived commands.

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16. (New) A video display system, comprising:
a plurality of video sources, each outputting a signal
representative of a video image;
means to receive the signals from each source and digitally
compress the images; and
a computer configured to receive the digitally compressed
images, the computer being interfaced to the following devices:
a display screen,
means to receive externally derived operator commands,
and
wherein the computer is programmed to perform the
following functions:
display the digitally compressed images from the
cameras in different windows on the display screen, each
window being associated with an update rate and
dimensions in pixels, and
vary the dimensions and the rate at which a
particular image is updated in its window in accordance
with one of the externally derived commands.

17. (New) A video storage system, comprising:
a plurality of video sources, each outputting a signal
representative of a video image;
means to receive the signals from each source and digitally
compress the images;
a high-capacity video storage medium; and
a computer interfaced to the following devices:

an input to receive externally derived operator commands, and

the high-capacity storage media, and
wherein the computer is programmed to perform the following functions:

store the digitally compressed images in the high-capacity storage medium, and

vary the dimensions and the rate at which a particular image is stored in accordance with one of the externally derived commands.

18. (New) The video storage system of claim 17, further including two forms of high-capacity storage media, one being randomly searchable, and with the other being serially searchable.

19. (New) A method of displaying video images, comprising the steps of:

receiving video images from a plurality of sources;

digitizing one or more of the images if not already in digital form;

displaying at least certain of the digitized images in separate windows on a display device, using a first, predetermined frame rate and a resolution associated with each window.

20. (New) A method of storing video images, comprising the steps of:

receiving video images from a plurality of sources;

simultaneously storing the images using a second predetermined frame rate and resolution.

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